From the Editor

Reflections on My Years with the ABR
by Thomas W. Berquist, MD, ABR Trustee

“The changes we dread most may contain our salvation.”
Barbara Kingsolver, Small Wonder: Essays

My term as musculoskeletal trustee for the American Board of Radiology (ABR) comes to a close at the end of June 2014. Therefore, this is the appropriate time to say “thanks for the memories.” As I look back on my eight years with the ABR and my editorships with The BEAM and the American Journal of Roentgenology, the thing I will remember most is constant change and evolution. Though the editorships were clearly separate tasks, both provided mechanisms to inform our readers of the continuing evolution in education, certification, and Maintenance of Certification (MOC).¹

Over the past years, all radiologists have been challenged by significant changes related to internal and external forces.² Wearing multiple hats provided me with the opportunity to participate in changes in education (member of the Residency Review Committee for Diagnostic Radiology) and in the certification and MOC processes (ABR trustee). As I move on, I find it interesting to reflect on some the events that have impacted education, certification, and MOC.

Education

In the 2012-2013 ABR Annual Report, the ABR states that a critical part of its mission is “to evaluate the quality of medical education in diagnostic radiology, interventional radiology, radiation oncology, and medical physics through its requirements for primary and subspecialty certification.” To this end, the ABR and the Accreditation Council for Graduate Medical Education met frequently over the past few years to ensure open lines of communication and to facilitate changes in training and certification.

The ABR leadership, most notably Dr. Gary Becker, our executive director, worked effectively with the American Board of Medical Specialties (ABMS) to assist with the development of other educational and certification programs. Significant examples of these combined efforts include the approval of a new specialty in interventional radiology/diagnostic radiology (IR/DR certificate) and new focused practice programs in cardiac CT and in brachytherapy, which the ABMS approved as pilots in early 2011.

Tremendous efforts have been made to communicate more effectively with our diplomates. This was accomplished through regular ABR update presentations at specialty and subspecialty society meetings,
maintaining close communication with our sponsoring societies, developing advisory committees for MOC and initial certification (IC), and an increase in the frequency of The BEAM from two to three issues yearly (spring, summer, and winter). The ABR Annual Report was also added in 2009 and is published each fall. These efforts will and must be ongoing as ABR processes continue to evolve.

Certification

The evolution of the certification process and the tremendous effort required of the ABR and its volunteers will remain in my memory forever. The transition from the old clinical and physics “written” examinations and the oral examination to the new Core and Certifying Examinations has been considered by many of our diagnostic radiology residents as painful and anxiety provoking. What was the rationale for the new examination process?

The oral examination did not provide consistent content (no two exams were the same), candidates could be overly stressed, and exam reliability was difficult to assess. Also, each part of the examination was subspecialty specific, so each candidate knew what content to expect. This did not mirror a normal workday in clinical practice. In addition, the written and physics examinations were not image-rich, and specifically, the physics examination was considered more appropriate for medical physics candidates. Furthermore, the ABR wanted to emphasize the importance of patient safety and provide more practical, practice-related physics in all future examinations. Finally, the oral and written examinations were expensive in time, effort, and travel on the part of many people. The Louisville oral examination required staff to be on site for nearly two weeks, and about 400 oral examiners (diagnostic radiology, radiation oncology, and medical physics) to be on site for a five-day period.

Once considered the “Exam of the Future” (EOF), the new Core and Certifying Examinations have taken years to produce. Developing the new computer-based exams has required increases in ABR staff and the creation of many new subspecialty volunteer committees to produce the content for both examinations. The Core Examination is image-rich and contains 18 sections, including all organ systems, modalities, medical physics, and patient safety. The examination will be given twice each year. Providing appropriate facilities for these examinations presented additional challenges. Dr. Jeanne M. LaBerge chaired the Testing Centers Task Force and, along with the ABR staff, was instrumental in developing the Chicago and Tucson Exam Centers.

Significant efforts were made to assist trainees in preparing for the first Core Examination, including the development of blueprints, study guides, and practice examinations. A Core Pilot Exam was held in our Tucson and Chicago Exam Centers this past June, with 93 percent of eligible candidates participating. The initial Core Examination occurred September 30 to October 4, 2013. The scoring process is currently under way, and the pass rate is expected not to deviate significantly from those of the written qualifying and oral certifying examinations.

The first Certifying Examination will be given in 2015. This examination is similar to the MOC exam discussed below. The examination will occur 15 months after the completion of training and will contain one essentials of diagnostic radiology module, a noninterpretive skills module, and three modules in clinical practice areas that are selected by the candidate. From the beginning, I remember thinking that this content approach offers great flexibility to candidates, whether they are in clinical practice or just finishing their fellowships. Also, it morphs nicely to the future MOC examination. This past year, the ABR combined the MOC and Certifying Exam committees to reflect the similarity of content.
Maintenance of Certification (MOC)

The continued changes in MOC, many generated by ABMS standards modifications, have made informing our diplomates of changes an ongoing challenge. This communication process has required continual updating of the website, revised presentations to societies, and changes in approaches by ABR staff. As my "memories list" seems to keep growing and growing, let us focus on the most critical changes for the MOC program.

Part 1 (Professional Standing) is essentially the same. However, Part 2 (Lifelong Learning and Self-Assessment) has changed significantly. In the beginning, the ABR required 25 CME credits per year, including two self-assessment modules (SAMs) per year, or 20 during the former 10-year MOC cycle. Over the years this has changed, so that now the ABR requires 75 CME credits during every three-year period, and 25 of the 75 credits must be self-assessment CME (SA-CME). In 2013, SA-CME was defined to encompass a broader range of CME that would count toward this requirement; previous "SAMs" are included as a subset within SA-CME.

As mentioned above, MOC previously had 10-year cycles, with the cognitive examination (Part 3) to be taken in the 8th through 10th years. The examination was then “delinked” so it could be taken at any time, but it must be repeated within 10 years. Most recently, Continuous Certification was initiated, with annual look-backs at MOC requirements and certificates with no end dates. These changes should positively affect our diplomates. For the latest information on Continuous Certification and SA-CME, go to www.theabr.org/moc-landing and click on the MOC update link at the top of the page.

Most importantly, the growth in MOC participation by lifetime certificate holders has improved significantly in all three disciplines (diagnostic radiology, radiation oncology, and medical physics). The 2012-2013 ABR Annual Report demonstrates a dramatic increase in lifetime-certificate-holder MOC participation since 2007: from 84 to 1,618 in diagnostic radiology, from 22 to 219 in radiation oncology, and from 13 to 66 in medical physics. The ABR Annual Report also notes that we have now surpassed the point where 50 percent of our diplomates are enrolled in MOC.

Finally, my most special memories will always be about the wonderful people with whom I have had the good fortune to work over the last eight years. My trustee colleagues, the executive directors and their associate directors, the wonderful ABR staff and, of course, the many volunteers who make the entire operation of the ABR successful will never be forgotten. I wish to thank all of you for these eight wonderful years and for what you have accomplished for our specialties.

References

Ask the Director

Continuous Certification Made Easy with Four Simple Questions:
A Conversation with an ABR Diplomate

By Gary J. Becker, MD, ABR Executive Director

First, a Little Background

Continuous Certification is easy? Gimme a break! What’s that you say? No governing cycles? No cycles? No limits on CME that can be counted in a single year?

That’s right.

Okay. Tell me more.

If you’re enrolled in Maintenance of Certification (MOC), you probably know that in 2012, the ABR stopped issuing time-limited certificates with “valid-through” dates. Instead, all new and renewed certificates have an effective date and a statement that “ongoing certification is contingent upon meeting the requirements of MOC.”

See what I mean? That’s exactly what I’ve been talking about! The ABR is always changing the rules! I was just starting to understand the rules last year, and you went and changed them again. Why did you have to do that?

Ironically enough, we changed the rules so they wouldn’t have to be changed anymore.

Okay, let’s hear you explain that one!

I’ll give it a try. In May 2012, a brand new type of certificate without valid-through dates, bearing the statement that “ongoing certification is contingent upon meeting the requirements of MOC,” suddenly became the only type of certificate the ABR will issue. Since no one can look at the certificate and know whether the diplomate is meeting the requirements, the obvious implication is that the information must be available somewhere else. Bingo. The information is publicly available with the use of a search tool on the ABR website (www.theabr.org) and another search tool on the American Board of Medical
Specialties (ABMS) website (www.certificationmatters.org). This simple fact became the driver of changes that resulted in the ABR’s new Continuous Certification program. Let me explain a little more.

The 24 ABMS Member Boards—including the ABR—have always been responsible for publicly identifying individuals who have met their certification requirements (and conversely, not identifying those who haven’t). That is the essence of certification, and providing this information to the public (e.g., individual patients, credentialers, CMS, and others) is at the heart of our mission. After MOC became a requirement for all 24 Member Boards, the next logical step was a new ABMS standard for public reporting of the MOC status of all Member Board diplomates. The new standard, originally scheduled to go into effect in August 2010, was delayed until August 2011. For reasons explained below, the ABR sought and obtained two extensions of this deadline, and eventually began public reporting of diplomat MOC status in March 2013.

So, what exactly happened, and how does it relate to the new and supposedly much simpler rules?

Thanks for your patience. I’m getting there—really. You see, to accomplish this public reporting, we needed a firm definition of “meeting the requirements of MOC” that could be applied across all diplomates and reduced to software code. This all sounds straightforward. However, because the ABR had many rules that varied by discipline (diagnostic radiology, radiation oncology, medical physics, and subspecialties) and by year of certification, as well as exceptions to the rules, the challenge of reducing every situation to a programmed, automated procedure loomed enormous and prohibitively complex. This truth was so apparent that we knew we should not attempt anything so foolish, for in doing so, we would risk incorrectly reporting the statuses of many diplomats.

But how and why did the ABR get into this position? How did you let it happen?

MOC is very young. In fact, the ABR’s full MOC program first went live on January 1, 2007. So, for 73 years, the ABR’s relationship with radiology professionals had always been fleeting. We gave an exam, collected a transaction fee, issued a certificate, and then literally watched our newly minted diplomates sail off into the sunset. No data were collected on an ongoing basis because there was no reason to collect them. Understandably, everything—even mailing addresses—became dated. As MOC began, the ABR suddenly became tasked with developing career-long relationships with diplomates through tracking and facilitating their further professional development. But MOC was new and changing rapidly, so the rules were layered as we went along and were determined by the year of an individual diplomate’s certification and his/her specialty. The layers continued to grow, compounding the complexity.

So, what did the ABR do about this?

In the words of ice hockey great Wayne Gretzky, we skated to where the puck was going to be, rather than to where it had already been. It was clear from the evolution of ABMS MOC standards and changes in the practice environment that the emphasis was moving away from cycles and toward a more continuous demonstration of the four parts of MOC (see box below). So, we joined a handful of ABMS Member Boards in working on a new approach, known as Continuous Certification, through which we overhauled and simplified the rules for participation in the ABR’s MOC Program. With implementation of the new rules in 2012, accurate reporting of the MOC status of all ABR diplomates became an achievable goal, which we reached just before the launch of public reporting in March 2013.
Continuous Certification Made Easy

You promised “Continuous Certification Made Easy with Four Simple Questions.” Can you elaborate?

Certainly. First, we still have four MOC parts (components), which are maintained in the new system. Each diplomate must log in to his/her password-protected myABR account at least once yearly to ensure that the MOC agreement has been signed, to verify that the information is correct, and to attest to his/her progress wherever attestations are required.¹

Continuous Certification Requirements

<table>
<thead>
<tr>
<th>Part 1 - Professional Standing:</th>
<th>Maintain an active, unrestricted license to practice medicine in at least one jurisdiction in the U.S., a U.S. territory, or Canada.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 2 - Lifelong Learning and Self-Assessment:</td>
<td>Earn 75 Category I CME credits over three years, at least 25 of which are self-assessment CME (SA-CME).²</td>
</tr>
<tr>
<td>Part 3 - Cognitive Expertise (MOC Examination):</td>
<td>Pass an ABR MOC Examination every 10 years.*</td>
</tr>
<tr>
<td>Part 4 - Practice Quality Improvement (PQI):</td>
<td>Complete at least one PQI project every three years.</td>
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*NOTE: This rule applies separately to each certificate the diplomate is maintaining.

Let’s see how the ABR’s Continuous Certification program works for the fictitious Dr. A., who was certified earlier this year. The core administrative procedure of Continuous Certification is an automated annual look-back by the ABR at each individual’s progress in MOC. This look-back occurs on March 15 every year. For a diplomate’s first full look-back to occur (i.e., for an assessment of all parts of MOC), he/she needs to have completed three years in the process. Until three full calendar years have passed after certification, the look-backs consist only of a check for Part I (active unrestricted license). For the newly minted Dr. A., the three base years for her first full look-back are 2014, 2015, and 2016. This look-back will occur on March 15, 2017.

Four Simple Questions

That’s all fine and well, but how does Dr. A. know if she’s satisfied her MOC requirements?

When the look-back occurs, the programmed automated procedure will ask four simple questions. If the answer to each question is “yes,” and Dr. A. has paid her fees, then she will be reported on the ABR and ABMS websites as “meeting the requirements of MOC”:

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¹ NOTE: This rule applies separately to each certificate the diplomate is maintaining.

² Note: At least 25 of the 75 Category I credits are self-assessment CME (SA-CME).
Has this diplomate ...

1. ...maintained an active unrestricted license to practice medicine in at least one jurisdiction in the U.S., U.S. territories, or Canada?

2. ...earned 75 Category 1 CME credits, at least 25 of which are SA-CME, and completed attestations on myABR, in the past three years?

3. ...passed an ABR Certifying or MOC Examination in the past 10 years for each certificate he/she is maintaining?

4. ...completed at least one PQI project and the attestations on myABR in the past three years?

NOTE: “Meeting requirements” is a certificate-specific determination; it is possible to meet requirements for one certificate, but not for another.

The ABR designed the look-back process with a rolling three-year window so that each March 15, we will assess the previous three years rather than a single year. This was done deliberately because anyone can have a bad year, or even a couple of years, in which CME and PQI had to take a back seat to other pressing matters. But with a three-year rolling window on MOC activity, the vast majority of people will find an opportunity to catch up and meet their MOC requirements.

What happens if, at the time of the look-back, one or more of the requirements is not being met?

In this case, the diplomate is reported as “Certified, not meeting MOC requirements.” He/she has another year to make up those requirements and get back on track. If the requirements have not been met at the next look-back, he/she is reported as “Not certified.” At this point, there is a path to regain certification, but it is beyond the scope of this conversation.

But what about diplomates like me who have already been participating in MOC?

OK, let’s consider someone like you—we’ll call him Dr. B. In his case, Dr. B. earned credits and completed PQI projects throughout 2012, which was the year of transition to Continuous Certification. However, the three base years for the first full look-back in March 2016 were 2013, 2014, and 2015. The ABR Board of Trustees didn’t want Dr. B. or any other diplomate to lose credit for CME and PQI completed in 2012, so they decided that for the first full look-back, CME credits and PQI completed in 2012 will also count.

One more question: Will my 10-year, time-limited certificate still be valid until its expiration date?

The Board intends to honor the expiration date on your certificate. If you meet all your requirements, you will be reported as such on the ABR and ABMS websites. If you fall behind, you will be reported as “Certified, not meeting MOC requirements.” But the “Not certified” designation would apply to you only if you are still not meeting requirements after the date of expiration on your current certificate.
I hope this conversation has clarified most, if not all, of your questions about the ABR’s Continuous Certification program. The look-back process really is easy to understand when you think about it in terms of the four questions. However, if you do have more questions, please contact the MOC Services Division at abrmocp@theabr.org, or (520) 519-2152.

1 Signing on to myABR is also the way to gain access to optional programs, such as Focused Practice Recognition in Cardiac CT, Focused Practice Recognition in Brachytherapy, and the MOC:PQRS Program, an incentive program of CMS under which the ABR has been qualified to attest, on behalf of participating diplomates, that they have met the ABR’s MOC requirements specific to this program.

2 Beginning January 1, 2013, separate requirements for CME credits and self-assessment modules (SAMs) were merged into a single requirement: 75 CME credits every three years, at least 25 of which must be self-assessment CME (SA-CME) credits. At the same time, the definition of SA-CME was expanded to include more than just ABR-qualified SAMs. Now, the ABR also counts credits for completion of all AMA Category 1 CME activities in “enduring materials” (including web-based and print) and “journal-based CME” formats toward the MOC SA-CME requirement.

AMA Category 1 CME activities performed in person or remotely, as in the case of teleconferences or “live” Internet activities, do NOT automatically count as SA-CME. For these types of CME activities to count as SA-CME credit, the organizations that create them must submit them for review and approval through the ABR qualification process. If accepted, these activities will be qualified by the ABR as SAMs and will count as SA-CME.

The ABR encourages its diplomates to continue participating in SAMs. However, diplomates no longer need to track their SAM credits separately, as they will be counted and tracked as SA-CME credits.

More detailed information about SA-CME can be found on the ABR public website: Diagnostic Radiology, Radiation Oncology, and Medical Physics.
American Board of Radiology Names Valerie P. Jackson, MD, as Next Executive Director

The American Board of Radiology (ABR) Board of Trustees has unanimously approved Valerie P. Jackson, MD, as its next executive director, effective July 1, 2014. She will succeed Gary J. Becker, MD, who will retire June 30, 2014.

Dr. Jackson is the Eugene C. Klatte professor of radiology and chair of the Department of Radiology and Imaging Sciences at the Indiana University School of Medicine in Indianapolis. An expert in the field of breast imaging, she has been active in clinical work, research, and teaching regarding mammography, breast sonography, and interventional procedures of the breast. Dr. Jackson is also active in radiology resident education and previously served as residency program director for the Indiana University Department of Radiology.

“The ABR is excited to have someone with the expertise of Dr. Jackson in the role of the new ABR executive director,” said ABR Board President James P. Borgstede, MD. “We also thank Dr. Becker for his work over eight years.”

Dr. Jackson served as an ABR trustee from 2001 to 2010. During that time, she was active on numerous board committees, including Bylaws, Diagnostic Radiology (DR), Diagnostic and Interventional Radiology Enhanced Clinical Training (DIRECT) Certification Pathway, Interventional Radiology Primary Certification, Nominating, Orientation, Volunteerism, and Maintenance of Certification DR Breast Self-Assessment Modules. She has also been the Initial Certification Liaison for the Accreditation Council for Graduate Medical Education Residency Review Committee, a member of the American Board of Medical Specialties Strategy Team, an Oral DR Breast examiner for many years, and a DR Image Asset Coordinator. She has been a director for the American Board of Radiology Foundation (ABRF) since 2011 and has served as chair of the Leibel Lecture Committee, the ABRF Oversight Task Force, and the ABRF Bylaws Committee.

In addition to her considerable volunteer efforts for the ABR, Dr. Jackson has been active in a number of national organizations. She has been a member of the American College of Radiology (ACR) Breast Task Force, chaired the ACR Commission on Education, and was a member of the ACR Board of Chancellors. She was president of the ACR in 2002-2003. She was elected to the Society of Breast Imaging (SBI) in 1986, became a fellow of the SBI in 1991, and served as president of the SBI from 1991 to 1993.
A member of the Radiological Society of North America (RSNA) since 1982, Dr. Jackson served as chair of the Refresher Course Committee from 2009 to 2012, chair of the Breast Imaging Subcommittee of the Scientific Program Committee from 2003 to 2006, and member of the RSNA News Editorial Board from 2005 to 2008. She was the RSNA’s First Vice-President from 2008 to 2009 and is a member of the RSNA Centennial Committee. Dr. Jackson also has been active on many committees of the RSNA Research & Education (R&E) Foundation and has served on the R&E Foundation Board of Trustees since 2009.

Dr. Jackson also has worked in numerous special service positions with committees within her institution, statewide, nationally, and globally and has been a faculty advisor to dozens of medical students. She has been a reviewer for numerous radiologic journals, including Radiology, the American Journal of Roentgenology, Academic Radiology, and Journal of the American College of Radiology. She also served as an associate editor for the journal Radiology.

Dr. Jackson is the author of approximately 100 peer-reviewed articles and 20 books and book chapters with an emphasis on breast imaging and radiologic education. She has served as principal investigator on numerous funded grants, including several focused on radiologic education. She is a sought-after lecturer and educator who has made more than 300 scientific and educational presentations at meetings worldwide.

The recipient of numerous honors throughout her career, Dr. Jackson is a fellow of the American College of Radiology and has received the gold medals of the Indiana Radiological Society, SBI, and ACR. The Valerie P. Jackson Education Fellowship also recognizes her work with ACR.

“Dr. Jackson is a perfect choice for the ABR executive director position,” said Gary J. Becker, MD, current executive director. “Having known her for more than 35 years, I can say with utmost confidence that she possesses the attributes and experience that will help her work successfully with the Board of Trustees to serve patients, the public, and the medical profession. She is renowned for her expertise in breast imaging and highly regarded as an educator and accomplished department chair. As I prepare to step down, I am comforted to know that I am leaving the board in Dr. Jackson’s capable hands.”
Focus on Residents

After the Core Exam – Now What?

by Duane G. Mezwa, MD, ABR Trustee

The year 2013 has been a year of change for the American Board of Radiology. We have seen the first Core Exam administered to 1,218 examinees in both Chicago and Tucson. If you take into account Maintenance of Certification (MOC), orals, medical physics, and radiation oncology, more than 7,500 examinees took our various exams during the past year.

One question that is often asked is, “Why did it take so long to get my results from the Core Exam, which is computer-based? Shouldn’t the results come right out of the computer and immediately be available?”

Following the first ever Core Exam, the ABR implemented the first scoring process for the new exam, which involved all of the following steps and quality assurance (QA) checkpoints:

Phase 1: Response Gathering and Quality Assurance Checking

Each response is gathered from each computer. The process is extremely exacting to ensure the response is associated with the right person. In addition, it is imperative that the responses be in a common sequence so they can be compared with the answer key. Protocols are in place to perform this quality assurance (QA) process. Since 792,342 individual responses were recorded for the first Core Exam, response gathering and QA checking comprised a significant undertaking.

Phase 2: Initial Scoring and Validating the Answer Key

The ABR staff then compares responses to the answer key to generate an initial total score. A critical step is to validate the answer key and identify any questions that exhibit statistical performance outside certain defined parameters. These questions are carefully reviewed by subject matter experts in the given categories. A decision is then made as to whether the question will be retained or eliminated in the final scoring. This year’s validation step required 14 conference calls with content experts.

Phase 3: Rerunning the Scoring Program, Equating, Applying the Passing Standard, and Scoring Each Category

After the key is validated, the scoring program is run again with all retained items. The resulting new score is statically scaled and equated. This allows comparisons from exam to exam.

The ABR Diagnostic Radiology (DR) Core Examination is scored in a two-stage process. This process is performed for each individual examinee.

**Stage One:** Each examinee’s overall score for the entire examination is tallied and compared against a pre-determined minimum acceptable performance level, or passing score. This level is set by a group of content experts and educators who, for each question on the exam, determine whether a resident just above the competency threshold would be expected to select the correct response. This standard psychometric process, known as Angoff standard setting, has been used by the ABR for many years for all of its “written” and computer-based examinations.

If the examinee’s overall score is below the passing score, the overall result is “Fail.”
If the overall score is at or above the passing score, stage two of scoring is applied.

**Stage Two:** Each examinee’s performance in each of the 18 categories is independently calculated and compared against a pre-defined minimum acceptable performance level specific for each category, set by the Board of Trustees. For the first Core Examination, this level is higher for Physics than for the other categories.

If the examinee passes every category, the overall result is “Pass.”
If the examinee fails 1-5 categories, the overall result is “Condition.”
If the examinee fails more than 5 categories, this exceeds the acceptable number of failed categories, and the overall result is “Fail.”

**Phase 4: Review of Scoring Results by ABR Trustees**

The ABR diagnostic radiology trustees are ultimately responsible for validating the examination and are directly involved in the review of scoring results. This step was especially important during the inaugural period for the Core Examination.

**Phase 5: Reporting Individualized Results and Feedback Charts: Verification, Display in My ABR, and Final Quality Check**

After the trustees review and approve the results of the scoring process, the individual reports and feedback charts are generated. A QA check is done to ensure that each result generated actually belongs to the right examinee. The display in myABR is tested to ensure it is accurate and that links work accordingly. The ABR executive management then performs a final quality check. Because the release of the Core Exam results was based on new software code, additional review and quality checking was required this year before results were released.

**Phase 6: Releasing Scores to Examinees**

Source: *The Beam*, Winter 2013  [www.theabr.org](http://www.theabr.org)  
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After the final review, individual results are released electronically, and examinees are notified by email. The entire process takes about 12 weeks if no problems are encountered along the way. The ABR office works diligently to try to keep the timeline as short as possible, while also retaining the integrity and accuracy that all examinees and their training programs deserve and expect.

We hope the process can be shortened with subsequent Core Examinations. However, the process required numerous steps, and QA checkpoints were needed to ensure the accuracy of results.
Focus on Diagnostic Radiology

Changes in the Diagnostic Radiology MOC Exam

by Kay H. Vydareny, MD, Associate Executive Director for Diagnostic Radiology

As technology has advanced and the field of diagnostic radiology has become increasingly subspecialized, it has also become nearly impossible for individual diagnostic radiologists to be masters of the entire domain. With this in mind, the ABR's practice-profiled MOC examination was designed to be modular, allowing each diplomate to self-select the clinical modules of his or her exam content.

To better evaluate each diplomate's knowledge, skill, understanding, and performance essential to the safe and competent practice within his or her specialized field of radiology, the ABR is making changes to the MOC exam modules. Previously, the exam consisted of five modules with approximately 45 questions per module, for an estimated total of 225 questions. The number of modules will decrease from five to four, with a slight increase in the number of questions to approximately 60 per module, for an estimated total of 240 questions.

The examination thus will consist of noninterpretive skills content (one module designated by the ABR) and three modules of clinical content selected by the diplomate based on his or her practice. In addition, for those with a more general practice domain, a general radiology clinical category is now available.

Noninterpretive skills content includes topics deemed important for every practicing radiologist to know, such as patient safety, life support, professionalism/ethics, and principles of image quality.

Clinical content is determined by each diplomate's self-selected practice profile, which is completed during the exam registration process. Each individual may specify the clinical areas in which he or she wishes to be examined. Diplomates may choose one to three different clinical content categories from the following:

- Breast
- Cardiac
- Gastrointestinal
- General Radiology (new in 2014)
- Genitourinary
- Musculoskeletal
- Neuroradiology
- Nuclear
- Pediatric
- Thoracic
- Ultrasound
- Vascular and Interventional
Study guides for clinical content are available on the ABR website at www.theabr.org/moc-dr-study and serve as one option for exam preparation. However, because clinical exam content is image rich and practice relevant, the majority of currently practicing diagnostic radiologists will find that knowledge gained in daily practice and through customary means of keeping up-to-date (literature, courses, etc.) will serve as adequate preparation.

A new study syllabus, *Noninterpretive Skills Domain Specification and Resource Guide*, is also available. This syllabus differs from past ABR study guides because it provides detailed content that the examinees are expected to know to pass the Noninterpretive Skills Module. Because the noninterpretive skills content area is so new to most physicians, the Board decided to make a departure from its longstanding practice of not prescribing study materials for examinations.

Please note that since this is a new and evolving area, the content of the Noninterpretive Skills Module may change in the future. If changes are made to this exam module, the syllabus will be updated accordingly. A link to the entire syllabus is available on the ABR website at the bottom of this page: www.theabr.org/moc-dr-study.

The following are a few more details regarding the MOC exam format and content:

- Clinical exam modules will include “normals,” so not every image will contain a problem that must be diagnosed.

- If more than one clinical module is selected in any one of the clinical content areas, the first module will be at the fundamental level, and the remaining modules selected in that clinical content area will be delivered at the advanced level.

- If a diplomate selects three modules in different categories, all three will be delivered at the fundamental level.

- A fundamental module consists predominantly of content that a general radiologist should or must know to practice effectively.

- An advanced module consists predominantly of content that may ask more detailed questions with greater depth designed for individuals who are subspecialists in an area.

- Subspecialty (CAQ) certificate holders must take at least 2 clinical modules in the area of subspecialty certification.

These changes will be instituted with the next Diagnostic Radiology and Subspecialty MOC Exam, to be held on March 3, 2014, at the ABR’s Chicago and Tucson Exam Centers. The exam registration deadline is January 27, 2014. To register for the exam, complete the online Maintenance of Certification Practice-Profiled Exam Registration Form, which is available at www.theabr.org/exam-registration.

If you have any questions, please contact the MOC Help Desk at abrmocp@theabr.org, or call 520-519-2152.
Focus on Radiation Oncology
Modifications to the Holman Research Pathway

By Paul E. Wallner, DO, ABR associate executive director for radiation oncology, and Anthony L. Zietman, MD, ABR assistant executive director for MOC in radiation oncology

The ABR’s Holman Research Pathway (HRP) was first implemented in 1999, and was intended to stimulate development of a cadre of future academic researchers and educators in diagnostic radiology (DR) and radiation oncology (RO). Program requirements have remained stable since its inception, and previously published reports have described its success at serving as a catalyst for young physicians to enter academic careers in both disciplines. As part of its ongoing efforts to improve academic career development by strengthening the program, senior ABR volunteers and staff meet periodically with current HRP trainees and alumni to monitor their career progress and receive feedback regarding their views of the program, especially related to opportunities for improvement. Following recent discussions in this regard, the HRP is initiating some minor programmatic changes that could have significant impact on career opportunities.

Previous program requirements specified that applications for participation should be completed during the early portion of the PGY-2 (R-1) training year. Some program directors suggested that applications so early in the training program might provide an insufficient opportunity to evaluate a candidate’s clinical skills. Because the clinical requirements of participation in the program are modestly reduced in both time and case numbers compared to the non-HRP cohort, this concern was heeded, and the new program literature now provides for the application process to remain open through the entire PGY-2 and PGY-3 (R-1 and R-2) years.

A concern raised by HRP trainees was that although there was clear evidence that HRP alumni entered and remained in academic careers in a much higher proportion than their non-HRP peers, they were successful in National Institutes of Health (NIH) R-01 (investigator-initiated research project) applications at a lower rate than full-time basic scientists. Although this trend seems to be the case throughout the national scientific enterprise, with an element of disincentives to clinician-scientists, any remediation of the problem within the domain of the ABR and HRP are somewhat limited. One potentially helpful solution suggested was a revision in timing of the clinical and research experiences of the HRP. Although the HRP never specified any timing for the clinical and/or research experience, the apparent implication of the current program literature was that the research experience should be completed during the PGY-3 and/or PGY-4 (R-2 and R-3) training years, and that the final year of training should be spent entirely in the clinic.
While returning to the clinic toward the end of the residency may be the best sequence for those HRP trainees who are looking for a first faculty position with significant clinical responsibilities, it may not help those who need laboratory continuity. Several of the recent HRP graduates suggested that this break in the research experience prevents the initiation of longer-term projects, disadvantages clinician-scientists in the establishment of stable laboratories, and prevents chairs and mentors from perceiving that the trainees are fully committed to the research endeavor. In an attempt to ameliorate these concerns, it was suggested that the HRP committee should modify program literature on the ABR website. The new application/timing description reads as follows:

In its desire to enhance the goals of the Holman Research Pathway, the ABR encourages mentors, program directors, and candidates to exercise flexibility in scheduling to enable trainees to derive the optimal research experience, and to improve efforts to maintain trainees’ research-oriented careers. To this end, candidates for the Holman Pathway may apply after completion of 6 full months of PGY-2 or at any time during PGY-3 (i.e., the first or second residency years in radiation oncology), and the research period may be completed at any time during the training period, including PGY-5. Regardless of the timing of application, research or clinical commitments, all program requirements must be attained. Completed applications MUST be submitted electronically by March 15, July 15, and November 15 of the application year to crosales@theabr.org.

The HRP committee wishes to emphasize that this new language encourages greater flexibility, but it provides no rigid blueprint for either the clinical or research experience of the HRP. Those decisions remain open to the needs and desires of the program, its directors, and the HRP trainees.
Focus on Medical Physics

A Farewell Note: My ABR Retirement

By Richard L. Morin, PhD, FAAPM, ABR Asst. Executive Director, MOC, Medical Physics

On June 30, 2013, I retired from the American Board of Radiology Board of Trustees. I was nominated for the position almost 10 years ago by the AAPM Board of Directors, and I'm forever grateful. I was selected by the ABR and became the second diagnostic medical physics trustee, following the legendary Dr. William Hendee. My good friend Bill did not quite explain the range of duties, which during my tenure grew substantially. With the addition of Maintenance of Certification (MOC) and the diagnostic radiology Exam of the Future (EOF), the three physics trustees are responsible for the medical physics content of 42 examinations every year.

There were some significant changes during my tenure: the continuing maturation of MOC, the 2012 and 2014 initiatives requiring CAMPEP-accredited education and training, the change of the ABR title of our field from radiologic physics to medical physics, the diagnostic radiology Exam of the Future, the formulation of the ABR Information Technology Advisory Committee, and revision of the ABR website and the launching of myABR.

I was honored to serve four years as the ABR secretary-treasurer and a member of the Executive Committee. I can assure you that ABR leadership is continually concerned with candidates and diplomates. Their concern about medical physics is genuine and very thoughtful. I'm sure the current secretary-treasurer, Dr. Geoff Ibbott, will continue to advise leadership regarding medical physics issues.

My experience as an ABR trustee was truly a once-in-a-lifetime journey. Becoming the senior medical physics trustee sometimes comes with interesting challenges. I surely enjoyed speaking at meetings and explaining how MOC works. That was certainly uplifting, and I always learned so much about decisions made. The ABR selected Dr. Tony Seibert to be the third diagnostic medical physics trustee, and I have the utmost confidence that he will speak with wisdom, insight, and strong leadership. I thank my fellow medical physics trustees during my service—Drs. Bhudatt Paliwal, Steve Thomas, Don Frey, Geoff Ibbott, and Jerry Allison—for their counsel, assistance, and thoughtful discussions.

I was always impressed by my fellow trustees and the many thoughtful debates over the many issues we faced. It was an honor to serve and work to better our profession and serve our patients. I wish the current medical physics trustees and all ABR trustees all my best. I shall miss our work but look forward...
to our continued friendships. The profession of medical physics is in wise and thoughtful hands. Thanks so much for the opportunity to serve.
The American Board of Radiology (ABR) has elected John A. Kaufman, MD, as trustee designate. He will become an ABR trustee when his official term begins on July 1, 2014.

A graduate of Boston University School of Medicine in 1982, Dr. Kaufman was an intern in surgery at the Hospital of the University of Pennsylvania, and then a general medical officer in the U.S. Indian Health Service. He then began training in diagnostic radiology and vascular/interventional radiology at the former Boston University Medical Center and Boston City Hospitals (now known as the Boston Medical Center). At the completion of his training, he joined the Section of Vascular Radiology at the Massachusetts General Hospital, where he worked until becoming a member of the Dotter Interventional Institute in July 2000 as a professor and Frederick S. Keller Chair of Interventional Radiology. Dr. Kaufman is also professor of radiology, surgery, and medicine at Oregon Health and Science University in Portland. In addition, he is chief of vascular and interventional radiology and director of the Dotter Institute.

Dr. Kaufman is interested in vascular interventions and the development of new techniques and devices. Most recently, he has worked on aortic stent grafts and retrievable vena cava filters. He has participated in laboratory and clinical research and is involved at a national level in related clinical trials. His other areas of interest include noninvasive vascular imaging with magnetic resonance angiography (MRA) and computed tomography angiography (CTA), gynecologic vascular interventions such as uterine fibroid and ovarian vein embolization, and long-term central venous access.

In addition to clinical work, Dr. Kaufman has published peer-reviewed articles, edited several books, and lectured at local, national, and international meetings. He is a co-author of Vascular and Interventional Radiology, part of the popular Requisites in Radiology series. Dr. Kaufman also reviews articles for several journals and is section editor for vascular and interventional radiology for the American Journal of Roentgenology (AJR). He is actively involved in committee work for the Society of Interventional Radiology (SIR) and the American Heart Association. The AJR awarded Dr. Kaufman a Figley Fellowship in Radiologic Journalism in 1996, he was elected a fellow of the Society of Interventional Radiology (SIR) in 1998, and he was the 2012 Dotter Lecturer. He is a past president of SIR and current chair of the SIR Foundation. He enjoys teaching and was voted "Teacher of the Year" by the radiology residents at Massachusetts General Hospital in 1995.
Board Eligibility Reminder

Attention Candidates! Did you finish your residency before 2005 but are not yet certified?

Per the ABR Board Eligibility Policy, those attempting initial certification in diagnostic radiology or radiation oncology who completed their training in 2004 or prior will cease being "board eligible" after December 31, 2014, and will no longer be permitted to describe themselves as board eligible.

Check the policy for your specific board eligibility period.